Fremont Coll.

√ 417. 1845. = Aplopappus spinulosus.
√ 35. " cf. A. rubiginosus. Torr. & Gr. — but more intricated involucres.
√ 452. 1846. Grindelia squarrosa? approaching G. robusta. Nutt.
√ 20. 1845. Chrysopsis canescens var. connecting with C. foliosa. Nutt.
√ 77 " " canescens — very hispid var.
√ Ee. 1846. " I suspect new. —
√ 1846 — (In parcel to return is the same. (C. lanata)
√ 292. 1845 — Some Aster, all mouldy & falling to pieces — probably some common one.
√ C. 1846. Baccharis viminea. DC — fertile pl.! — before unknown — Douglas, Coulter, & Hartwegs are male.
√ 223. 1845. Baccharis salicina.
√ Dd. 1846 B. consanguinea DC
√ 33 1845 Melampodium leucanthum
√ 186. " Gutierrezia Euthamiae. —
√ L. 1846 Wyethia n. sp. call it W. ~~macro~~megacephala. —

~~W. a~~ The same is in Hartweg's coll. 1784. but young & floccose-woolly all over. I think it perhaps ~~too~~ not too late to name it & put it in a note — ~~but~~ I shall print it before Bentham gets so far. What say you?

P.S. I have changed my mind about this, and now think it the W. Alarconia helenioides, DC* but diff. from any in Flora. We will wait & see what Bentham (who has the orig.) makes of it.)

√ 282. 1846. Balsamorhiza macrophylla. Nutt. young.
√ 34. 1845 Helianthus petiolaris. Nutt
√ 21. 1845 = Heliomeris Nutt in Gambel Pl.! either his spec. or an ally. How large is your plant. How long the cauline leaves. [= Helianthus, without any pappus.

* "Inula Helenii facie ferentes" DC.
~~* Capit.~~

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY.

Fremont

√ no 6. 1845, = Dieteria coronopifolia.
√ 481 " " viscosa. Nutt. }
√ 367 " " " }
√ 36 " " " }
√ 105 " }
√ 365 " } " pulverulenta.
√ 255 " } Probably same, but too mouldy.
√ 180. }
√ Kk. 1846. Corethrogyne virgata. Benth. Sulph.
√ 57. 1845 Aster laevis.
√ 420 " A. multiflorus, vars
√ 375 " A. simplex?
√ 31 " A. Novaeangliae
√ 12 " A. multiflorus. α
√ 232 " same as 420.
√ 64 " Seems to be A. Nuttallii, or new. – (Nutt.'s specimen is poor).
√ 167 A. adscendens.
√ 394 " Aster, new, to all appearance – where does it probably come from? (371. returned, is same. but approaches A. adscendens. But too poor specimens – all mouldy
√ 242 " A. laxifolius. –
– 282 " Aster – too poor to tell.
√ Ji. 1846 Erigeron glaucum var.
√ 85 & √88, 1845 E. glabellum.
√ 275, 1845. E. Philadelphicum
√ 12 " Aster salsuginosus β.?? very mouldy.
√ 498, 1846. E. (Pseudo-erigeron) ~~Nuttallii~~ Douglasii. Glad to see this.
(Hartweg also has it. I divide with you.)
√ 54. 1845. Gutierrezia divaricata, Nutt
√ Gg. 1846. Solidago Californica β.
√ Ff. 1845?. S. multiradiata?
√ 22. 1845. S. Canadensis.
72 " (returned) = Aster multiflorus γ.
√ 427. 1845. }
√ 160 " }
17 " } apparently all Linosyris graveolens.
√ 306 " }
√ 244 " }
√ Ahe " }

Fremont. Continued

√ 299, 1846. Chaenactis heterocarpha. Torr. & Gr. n. sp. — (also in Pl. Hartweg. so I have secured it.)

Line of the Joaquin. March. 1846. = Madaria major.

√ 62, 1845. Artemisia filifolia —
√ 22 " (not Artemisia, but) Salix —
√ 296 " A. Canadensis
√ P. 1846. Matricaria discoidea.
√ 374 " Artemisia frigida.
√ O. " A. Californica, Less.! (& A. Fischeriana, Bess. Ledeb.!
√ 386 " A. tridentata.
√ 385 }
√ 463 } 1846 Artemisia not in my herb. from char. probably A. Lindleyana. Bess.
√ 236 1845. Antennaria alpina.?
√ N. 1846 Senecio Californicus DC.!
√ 41. 1845 S. filifolius. a Lamesii
√ 326. 1846. S. eurycephalus. Torr & Gr. ined (also in Hartweg)
√ 202 " Crocidium multicaule. Hook.
√ 164 1845 Arnica latifolia, Bongard
√ 399 1846. Cirsium undulatum (C. Douglasii DC.)
√ H " Stephanomeria paniculata. Nutt — (apparently)
√ 68, 1845. Troximon glaucum, Nutt.
√ 279 1846 Macrorhynchus heterophyllus, Nutt. (Chilensis, Hook.
√ 248 " " same with finely pinnatifid leaves, or new sp. (no fruit &c.)
√ 183 " " heterophyllus — pretty large.

Coll. Fremont. Continued.

√ No. 479, 1845 = Ximenesia encelioides. –

√ 302 " = Dyssodia chrysanthemoides.

√ 39. " = Gaillardia pinnatifida. T.

√ 241 " G. aristata.

√ 333 " 1846. = Bahia lanata.

same – more slender. –

√ Aa " B. lanata. β tenuifolia.

√ Bb. " Burrielia gracilis, DC.

√ 169 " B. (Baeria) chrysostoma –

√ 278 " Dichaeta – a new species – well-marked (D. Fremontii Torr.)

√ 289 " Actinella Richardsonii. var.

√ 369 & 404 1845. Amauria?? dissecta, n. sp. in Pl. Fendl.

√ 294. 1845. Layia (Callichroa) platyglossa.

√ M. 1846 (Calliachyris) Fremontii

√ 318 " " platyglossa, var. setis papp. tenuioribus quam in M.

√ 176 " "

√ 177 " Layia elegans. Nutt.

√ J. 1846 Madaria elegans. leaved.

" var. minor.

√ U "

√ 478. " Hemizonia n. sp. allied to H. pungens, but very distinct. (Not in Hartweg, I do not describe it therefore, ~~now~~.) ~~Will~~ present by

compare with E. Exped. Pl.

√ R. & S. " H. angustifolia – or new. – (but not Pl. Fl. N. Am.) [= H. decumbens, Nutt. Pl. Gamb.]

√ Q. 1846. Calycadenia – very remarkable n. sp. verging to Hemizonia – – must form a §. (C. virgata)

√ V. " Hemizonia n. sp. combines § 5 & 6. – (H. viscosissima, cf. with H. rudis, Benth.)

√ 505 " Calycadenia cephalotes. DC.

√ T. " Calycadenia, n. sp. connects with § Osmadenia some fl. leaves with terminal glands: others not.

√ W " Calycadenia – another, n. sp. 3-disk fl. one ray

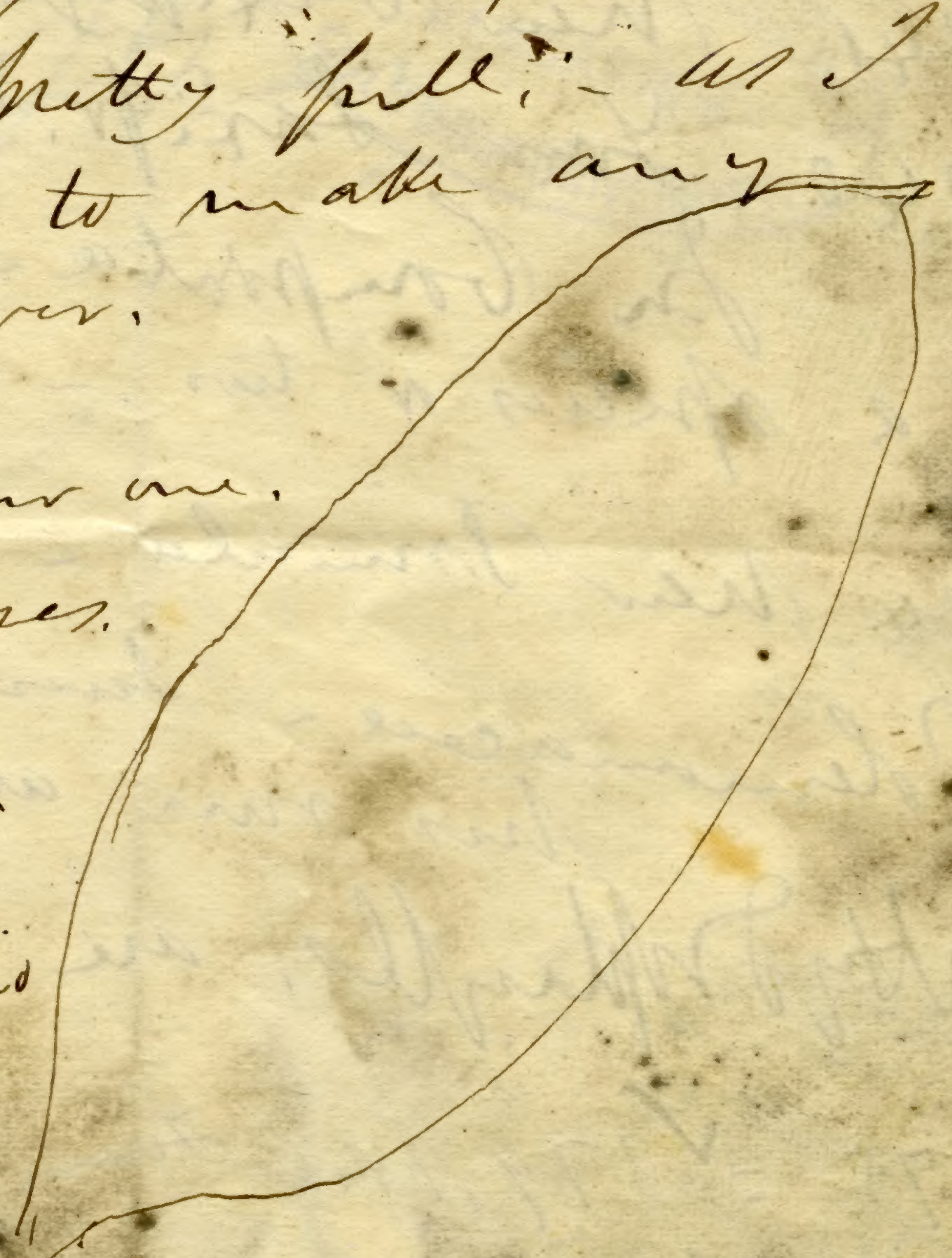
Not in Pl. Hartweg, so I do not describe them now

Fremont.

√447. 1846. Ribes cereum, young.
√159 " R. glutinosum, Dougl.
√372 " R. californicum. H. & A.!
√366. " & probably Sicyos? Same as 199. Coulter & a plant
√555 " from Calif. Chamisso, – of which I have
the vestiges of a singular, large, prickly fruit.
√273. " Sedum spathulifolium?
Echeveria lanceolata?
√489 " "Saxifraga (Sinnopeltis) elata" Torr. – A grand thing. –
√155. " pity it should not be called peltata. but surely
not elata; since there has lately been one of Nutt.
Except the leaves, it would seem to belong to the same
section with S. crassifolia, &c. of the Himalaya.
do call it S. peltata.
√413. " Lithophragma glabra, Nutt. (cf.)
√511 " Philadelphus Lewisii. –

Wednesday 29 Sept. 1847.

I have just got my set of Hartweg's Calif. Coll– the "3rd coll." – so that it should be pretty full:– as I open it I put your sheet before me to make any notes that occur as I turn them over.



1629 is Myosurus probably Bentham's new one.
1641 a Dendromecon with large oblong leaves.
so large.
1651. = Thysanocarpus, I remember among your Frem.–
with very large fruit, woolly on the disk.
1634 is a new Viola, caulescent – with palmatifid
leaves, I do not remember it among Fremonts.
1661. Polygala – not yours of Frem.:– I send you
one of the specimens – keep it.

His Malvaceæ are all Sidalcea's only
one new one — & that strengthens the genus —
I shall write Bentham about them next week;

1670 is Hypericum Frem. between Scouleri & Buckleyi.
— a low, large-flowered one.
1677: is your Frem. E. 1846, the calyx &c. still woollier —
Limnanthes, n. sp. — see spec.
1678. " " 286, " — but slenderer & more scapoid. —
1683 new Ceanothus — wh. you have not.
1686. Rhamnus aff. R. oleifolius but whiter, like Olea.
One or two new Astragalus — Many clovers — not new,

1706. = your Cercis.
1708. Photinia looks new — broader leaves.
1712. A curious, new, fern-leaved rosaceous shrub —
of which Frem. had the leaves only — for Benth.
gets the naming of it. — I send you a piece —
1728. A new Godetia with obcordate petals.
nothing more new in Onagrariæ —
1741. New Saxifrage; not in Frem.,
1740 Your Saxifr. peltata!
In Compositæ — nothing strikes me as new, except perhaps
a species or two. — I shall collate yours with them presently.

1834 New Primula — Benth. had better have
Polemoniaceæ — several new ones —
his own among them.
Hydrophylls. are few & familiar.

1875 = √379, 1846. Frem. Scroph. I know it not.

Scroph's are many — but very few new.

Two Cupressi:
Taxodium semperv. in fine fruit. seeds shed
Leaves like my cult. plant.

As I collate these plants along
I shall be able to furnish you specimens or
portions very frequently.

So, none of your new Genera are interfered
with by Hartweg.

You can well afford to let him name the
Limnanthes. — as he has probably done ere
this.

Carey is to come to-morrow — Friday —
or Monday.

In haste thine
A Gray

In fact I get few new plants out of Hartweg for my money.

CAMBRIDGE
SEP
27
Ms.

V

Prof. John Torrey
Princeton
New Jersey

A
B
C Baccharis viminea DC. fert. fl.!
Before unknown
D
D E Limnanthes
D F Hypericum "Scouleri – dwarf? or more likely n. sp."
G The new Bombaceous? genus, with sep. flowers
H
I.
K
L
M Layia (Calliachyris) platyglossa
N. Senecio Californicus, DC.!
D O Artemisia "Californica Less. (& A. Fischeriana Bess. Ledeb.!"
P Matricaria discoidea
D Q Calycadenia virgata – n. sp. ~~[illegible]~~ "Remarkable verging to Hemizonia – n. §."
R } Hemizonia decumbens, Nutt. pl. Gamb.
S
* T Madaria elegans
" " " narrow leaved.
U
V Hemizonia n. sp. "combines § 5 & 6) (viscosissima) cfr. H. nudis Benth.
D W Calycadenia "– n. sp. 3 disk fl. one ray" – uniradiata. S.T.
X Stephanomeria "paniculata Nutt. apparently"
Y
Z Alarconia helenioides DC.
= Hartweg 1784

T. (bis) Calycadenia "n. sp. connects with § Osmadenia."

Aa Bahia lanata – [illegible]
D Bb " " β. tenuifolia A
D Cc
Dd Baccharis consanguinea
Ee Chrysopsis – D. G. [illegible] nec – (Cr. lanata ?prov.
Ff Solidago multiradiata?
Gg Solidago Californica β.
~~Hh~~
Hh Linosyris graveolens – probably
Ii Erigeron glaucum.
Kk Corethrogyne virgata Benth. Sulph.
D Ll Ranunculus – new to A. Gr.
D Mm Dendromecon rigidum
D Nn Romneya
D Oo Isomeris arborea Nutt.
Pp Erysimum asperum – apparently
Qq Thysanocarpus n. sp.? (megacarpa?) radians Benth. pl. Hart. no. 1651
Rr Barbarea vulgaris (fl.) from radical shoots)
Ss [illegible] glabra
Tt ~~Thysanocarpus n. sp.? (megacarpa?)~~ Lepidium n. sp. – aff. Lep. nitidum
Uu "Viola canina var. – aduncas?"
D Vv Mesembryanthemum
Ww Sidalcea "humilis – I suppose" A. Gr.
Xx Frankenia grandifolia
Yy Polygala – scarcely either P. Nutkana or P. Californica Nutt.
Zz.

Aaa Ceanothus cuneatus Nutt.
Bbb " " thyrsifl. in fr.
Ccc Negundo Californicum
Ddd Trifol. fimbriatum. var.
Eee Linum Berlandieri ??
Eee Oxalis
Fff Trifolium megacephalum - small
Ggg Hosackia elata, Nutt.?
Hhh " floribunda " :
* Iii "(Syrmatium) toment.:- perhaps different - Larger & sharper leaf.
* Kkk. Phaca Douglasii
Lll Psoralea macrostachya
Mmm " strobilina
Nnn Adenostoma fasciculata
Ooo Cerasus ilicifolia
Ppp Oenothera (Godetia)
Qqq
Rrr - Oenothera (Godetia)
Sss = Ttt?
Ttt "Sicyos? = 199 Coult"
Uuu Peucedanum
Vvv
Www Lonicera hispidula
Xxx "Galium suffruticosum Nutt. but not Chilian sp. Call this G. Nuttallii"
Yyy
Zzz
D Ppp.(a)
× Jjj "Oxytropoides"
Hhh (bis) Lupinus versicolor
[illegible] Lupinus

Aaaa Statice
D Bbbb Castilleja
Cccc
Dddd
Eeee
Ffff Pentstemon
D Gggg · micromeria
Hhhh Trichostema?
D Iiii. Scutellaria
D Kkkk ~~Lab.~~ Scroph
Llll.
D Mmmm · Gilia
Nnnn
Oooo
D Pppp - (Solan. or Physal.
Pppp(a) ~~Erythraea~~ muhlenbergii (ex Benth)
Qqqq Abronia -
Rrrr
Ssss
Tttt
Uuuu Oreodaphne
Vvvv
Wwww Euphorbia
D Xxxx Tulipa?
Yyyy Trillium sessile?
Zzzz Allium

Xq. 1846. Lab
Xvi " Trichostema "

Fremonts ~~2nd~~ 3rd. Expedn.

East of Fort Laramie

Bentham – [illegible] } Sent
Decaisne – = D. } Oct [illegible]

15 Stanleya pinnatif.? very narrow
62 Artemisia filifolia
B. 20 Lythrum
22 Salix? 7. Mirabilis multif.
41 Senecio filifolius α
D 68 Troximon glaucum Nutt.
39 Gaillardia pinnatif. β.
D 35 Aplop. rubiginosus T. & Gr.
but no imbric. invol
35(bis?) Hypericum nudiflorum
20 Chrysopsis canescens – near folios.
19
77 Chrysops. canesc. – very hispid!
33 Melampodium leucanthum
34 Helianthus petiolaris
6 Dieteria coronopif. 18 Fremontia vermic.
36 Dieteria viscosa 42 Eurotia lanata
36 Salvia D. 45 Bartonia ornata
58 Aster laevis 24 Obione confertif. β?
31 " novae angl.
12 " multifl. 82 Sidalcea humilis
64 " Nuttallii or new 70 Oxytrop.?
81 Englemannia – 42 Solanum
85
88 } Erigeron glabellum 63 Gilia
12 Aster oblongifolius β?
D 19 Kallstroemia maxima. 24 Gilia
D 54 Gutierrezia divaricata N.
22 Solidago lanat. 21 Hedeoma:
D 17 Linosyris graveolens
56. = 406? (Astrag. Missouriens.?)
80, 86 – Linum perenne
49 Rhus trilobata
25 Ceanothus incanus or new.
25 Physalis. 111 Croton.
152 Viola pedunculata
167 Aster adscendens
126. Argem. mex.
121 Heliomeris Nutt. (Gambel!) his sp. or ally
164 Arnica latifolia Bong.
185 Crataegus rivularis
D 109 Artemisia filifolia
158 Pomac. – new to Afr.! 128 Gentiana
D ~~156~~ 141 (Ark.) Malvac. 188 Sidalcea
140 Oxytropoides
106 Phaca argophylla
186 Gutierrezia Euthamiae
105 Dieteria pulverulenta
180 " – " ?
D 160 Linosyris graveolens
156 Pachystigma (Raf.) myrsinites. α minor
175 Psoralea cuspidata
145 Dalea aurea
D 187 Salix longifolia
241 Gaillardia aristata
D 141 (~~H~~ Calif.?) Malv.
294 ~~Anemone~~ ? [illegible] n. sp. pl. Fend.
225 L. laxiflorus? new to Gr.
223 Baccharis salicina

248 Phacelia.
255 Dieteria pulverulenta probl.
244 Linosyris graveolens
235 Trifol. n. sp. minute invol
236 " tridentatum Lindl.
223 Argemone mexicana
269 Clematis pubescens Benth. Hart. or new
228 Polanisia trachy.
218 Oenoth. graciliflora. cal. tub. shorter
219 " contorta
224
221 Lupinus
302 Dysodia chrysanthe.
D 369 Actinella Richardsonii – var
368 Oxytropoides
308 L. laxiflorus? new to Gr.
367 Dieteria viscosa
393 Aster – seems n. sp.
386. Lepidium, Gray don't know?

442 Nyctenium
444. Physalis
469. Eustoma Russel.
D 411 Sphaeralcea – new – = S. pedata
479 Ximenesia encelioides
D 404 Actinella Richardsonii
413 L. laxiflorus? new to Gr.
417 Aplopap. spinulosus
481. Dieteria viscosa
~~480~~ Lepidium alyssoides Gr. pl. Fend
406 Astragalus Missouriensis? ~~cf~~ Fend
410 Sidalcea candida = var? (pl. Fendl.
D 418 " humilis Gr. (Sid. malvaefl. H.A
470 Argemone hispida Gr.
486 = 46 pl. Fendl. . Is it Lepid. integ. N
483 – Arkansas.
499 Cirsium undulatum
425 Abronia mellifl.

Fremonts plants examined by Dr Gray

√140
√368 } 1845 "Oxytropodes" - He wants my names for them

√Kkk = Phaca Douglasii -

√106, 1845. P. argophylla

√473, 1845 Lupinus Menziesii, large ?

√242 " L. gracilis

√262 " L. ornatus

112, 1844 Glued duplicate = "L. albifrons, I think"

√Hhh. ~~L.~~ cfr. L. versicolor

√ "Jjj - [Is it not 1845?) L. affinis ?"

√225
√308 } 1845 are the same & new to my herbarium
√413 } - They may be L. laxiflorus

TORREY COLLEGE ... HERBARIUM COLUMBIA UNIVERSITY.

Fremont
✓ No. 428 (1846) = a new species of the typical section of
Malvastrum (gen. nov.) which takes many American
Malvae of DC. &c. — I will describe it in a note — to
anticipate Bentham — or not, as you please to direct.
The other species of the sect. in N. Amer. are M. coccineum (Sida,
DC.) & var. dissectum. M. grossulariaefolium (Sida, Hook & Arn.) —
M. Munroanum (= Malva Munroana, Dougl. & M. fasciculata,
Nutt.)

Sida alceoides is a true congener of Malva (Nuttallia
pedata - digitata &c. — which the internal process all
the same !!) =
Malva (Callirhoë) Michauxii. (the sp. name M. alceoides
preoccupied.)

✓ 476 (1846) = Sida hederacea. Torr. ined. etc. — It is the
Malva Californica Presl. of which I have a bit, ~~but~~
the earliest name — though
& that is probably a little — Yes, I can; it was
I can't certainly tell. —
published (Vol. 2. livr. I. ~~pp.~~ to p. 152. in 1835.
So that after Hooker, or not. [ver. 1830 J.T.] It will be as
well to pass his name any how. — although
Nuttall's Sida Californica = Sidalcea of my Nov.
in Pl. Fendl.

49.

Prof. John Torrey

Princeton

New Jersey

CAMBRIDGE
AUG
31
Ms.

V

is not in print. — N.B. please return.)

149. Fendler. I have certainly seen this somewhere —
Is it in your herb.? Is it A. Missouriensis?

(Top of a legume of 148. Pl. Fendler.)

Above all, now, I want you to compare no. 146. Fendl. Pl. with A. pachycarpus, in your herb. The plant agrees quite well with your descr. — but you had not the flowers. Our plant from Fendl. has legumes much like those of A. caryocarpus in shape, only arcuate when young — & the walls are thin & in the dried sp. membranaceous & much inflated. The plant comes from Santa Fe.

I close this & send now, being so anxious about these Astragali, which I cannot study out till I hear from you. —

Meanwhile let me say that your welcome parcel ~~from~~ of Pl. Fremontianae came yesterday many thanks. —

By Hilton, I sent a parcel containing your Matricaria stuff — & a few other things, —

My messenger to P.O. waits impatiently. Thine ever, A. Gray

Pl. ~~Fr~~[illegible]

√ Fendl. 1846. – Trifolium megacephalum, Nutt.

√ 235. 1845. Trifolium, n. sp. – The minutest, abortive rim of an involucre at the base, in the single head I have, connecting with the other section.

√ 236. " T. tridentatum. Lindl.

√ 443. 1846 – T. variegatum β. Torr. & Gr.

√ 425 T. Heterodon ? } I have not that species
Fimbriatum }

√. ~~Dall.~~ ~~46~~ T. fimbriatum [illegible] or platycarpa

√ 354 " Hosackia grandiflora.

√ 167 " H. [illegible]

√ 267 " H. subpinnata.

√ [illegible] " H. elata, Nutt. ?

√ ~~[illegible]~~ " H. floribunda, Nutt.

Jjj. " Syrmatium tomentosum – is perhaps distinct, the larger pl. sharper & larger leaflets on the upper part.

√ 436 [illegible]

480. 1845. – is that Lepidium of Fendler's (L. alyssoides.)

406. 1845. Is not this Astragalus Missouriensis? Will you compare that I may know that species, of which I have no specimen.

√ 455. 1846 Astragalus glareosus, Dougl. & (argophyllus, Nutt.) same in Spalding's coll.: large specimens.

56. 1845. Is this the same as 406. 1845? Please give me an idea of A. Missouriensis & compare this with No 148. Pl. Fendl. One specimen of this pl. Fendl. has leaflets ½ to ¾ inch long, & I suppose is "A. humilis, Geyer" Hook. & I suspect also A. Shortianus, Nutt. If you can tell me if it is, or is not Missouriensis, I will have it compared through Durand with A. Shortianus of that is in Phil. Acad. I add the tip of a legume. [illegible] your spec. Fend.

P. S. Have you any fruit of Malvaviscus? I shall be obliged to figure that without the [illegible] if you have not. —

Dr. Torrey

√ 8 (+ 470 (1845). From the fruit I am all the more set in my belief that this Argemone hispida is a good species; do any of your spec. show whether it is a perennial?

A. alba [illegible] Long Isl. Sept. 19

√ 126. √(223) A. Mexicana.

Romneya!

Dendromecon = β. lanceifolium, Hare!

√ 305. Esch. hypecoides – small

√ 401. " Californica.

√ 233. " immensely large flower – must be new.

√ 304 Platystemon

√ 339. Dielytra formosa.

√ 175 Corydalis aurea.

√ 345. Berberis Aquifolium.

√ 149 Delphinium variegatum. Nov. Gen.

√ 505. D. – I know not.

√ 205 } D. Menziesii. probably
√ 249 }

√ 485 Agrees with D. simplex β. Hook. & Arn. Beech. Suppl.

√ 449 D. nudicaule.

√ 423 D. simplex var.

√ 367 Paeonia Brownii

√ 140. Ranunc. dissectus. Hook. & Arn. Beech.

√ Ll. 1846. R. New to me!

√ 235. Clematis lasiantha. Nutt.

√ 269 (1845) near or C. pubescens, Benth. Hartw.?

√ Ob. Ibid.

√ 104. Cleome integrifolia.

√ 225. Polanisia trachysperma.

√ 384 (1846) is a Crucif. new to me. Genus not clear.

√ Pp. (1846) Erysimum asperum apparently.

√ 154 " Cardamine angulata?

√ Rv. " Barbarea vulgaris? flowering from radical shoots.

√ 306 (") Thysanocarpus elegans.

√ 22. " T. – n. sp.? – The largest fruit I know. (T. megacar[illegible]

✓ 417 (1846) Thlaspi montanum (silicle only 3-5 ovuled).

✓ 55. " Turritis glabra — fruit only (Cf. T. macrocarpa, Nutt.

✓ 203. " Aspidocarpum nov. — Septum perfect?

✓ 125 " All ripe fruit. — Don't know. Apparently a Turritis (Cf. T. spathulata, Nutt.)

✓ 74. " Lepidium nov. aff. L. nitidum.

✓ 224. " Barbarea vulgaris or arcuata?

✓ 15 (1845) Stanleya pinnatifida? very narrow.

✓ 129 " Sisymbrium canescens var.?

✓ 386. " Lepidium, I don't. just identify with any of mine,

✓ 480 " L. — same as the no. 46, Pl. Fendler — I gave you fragments of, Please see if either agree with L. integrifolium, Nutt, in your herb.,

✓ 132 " Viola pedunculata.

✓ 373 (1846). V. Nuttallii, Hook.

✓ Nov. " V. canina var. or adunca?

✓ 35 (1845) Hypericum nudiflorum.

✓ 7 1846. H. Scouleri dwarf? or n. species. ~~more~~ likely.

✓ 9 (1845) = Silene stellata.

84 (1846) Alsine Douglasii Fenzl. (Ar. trichoidea Nutt.?)

Fremont.
√467, 1846 = Lonicera involucrata.
11. 1845 Symphoric. glomeratus.
Nov. 1845 (meaning 1846) Lonicera hispidula!
√ 55. " Cephal. occid.
√ X** 1846. Galium suffruticosum Nutt. ex char. — Compare it.
There is a Chilian G. suffruticosum — therefore call Nutts. — in your Ex. Exped. — G. Nuttallii.
√ 316. " Plectritis macrocera.
N. B. I ~~believe~~ the Spalding plant is macrocera also.

The two following, being out of place — viz. appended to a parcel of Mex. plants, I only found now.

√ 499(a) 1846 = Rhamnus oleifolius with ~~more~~ a whiteness — on the under side of the leaves not in the Douglas or Coulter plants, except a mere trace.
√ 499, 1846. — A still more white hoary plant, which at first I thought quite distinct. — but in flower & probably growing less white as it fruits. —
Besides: Hartw. Calif. 1686 — (which I divide with you) is intermediate. You can see if you think all together distinct from R. oleifolius.

I have nothing ready to send to Bentham — but your parcel of Leguminosae & Labiatae. — As I shall not send for about 3 or 4 weeks to London I will send that back to New York for you — if I have a chance to send a parcel soon. — If not, it shall go soon.

Query? Is not the Lupinus which Carey calls L. aridus, in Spalding — the L. holosericeus, Nutt.?

Dr. Torrey

I have just despatched a letter, but am obliged to begin again.

In sending Œnotheræ, I should like to have you send the § Pachylophus, — especially Œ. marginata & montana. — If you have no 228. Fendl., you will notice a remarkable species, which I took for Œ. marginata — but the pods (& whole plant) are large & sessile. &c — It is a striking plant.

(Œ. lavandulaefolia is I think in Gregg's coll. from Buena Vista — also two new ones, but too imperfect to venture on yet.

Fremont
√125. 1846 = Œ. (Primulopsis) ovata, Nutt.
√218 – 1845. = Œ. graciliflora. shorter tube to calyx.
√172 1846 = apparently Œ. dentata, Torr & Gr. Fl. — but more pubescent.

— Compare the spec. enclosed with Œ. parvula, Nutt. in your herb. — I think they are the same.
√219. 1845. Frem. is the same. viz. Œ. contorta.

√441. 1846. } Are Œnothera Godetia. sp. — tenella Cav.?
√435 " } Look pretty well-marked, — but
√[illegible] " } I dare not attempt to name them
√[illegible] " } without more study than I can give now —
Probably you have them all worked out for the Ex. Expl.!

√430 " = Eucharidium. The first wild specimens I ever saw! I have made cultivated ones for you this season.

√ 482, 1846 = Clarkia elegans.

A Sida from Key West, Blodgett = S. ciliaris, L. (Cav. Diss.)
(cf. S. involucrata A. Rich. H. Cub.)

It is near your S. fasciculata from Tex., — of which I have a bit in flower only (no fruit) — which is much larger than in S. ciliaris — & not such fine ciliate-hispid stipules. the corolla apparently rose-color. —

Another is Sida supina, L'Her. (well figd. in Cav. Diss. as S. ovata!)

A Greggian species, from 2 or 3 localities, is apparently a var. of the same, with the young branches &c sparsely pilose with long soft hairs. — It might well be S. diffusa H. B. K. but the flowers are pretty large for the plant, & yellow not "pani violacei." —

Sida hispida, Pursh; Hook. &c. St. Louis — Malva perpusilla Nutt. mss. in Herb. Torr. — is a Malvastrum.

Gregg: "near Patos, May 19/47 = a new Malva (Callirhoe §*.) but insufficient safely to describe from, as to my specimen. Is yours a pretty good one — & with anything like fruit.

Gregg's Abutilon — from "Monterey &c. Is it your A. Texanum of Flora? — I have it from Texas & in cultivation

A Sida with the inflated calyx, n. sp. & a new sect. of Sida. the name which would be best, S. physaloides, is preoccupied by Presl for an allied Mexican species & I have also from "Walnut Grove — May 26", & from Texas, Lindh. — & am going to figure for Genera. It must form a new genus — along with a remarkable 2nd species from Mexico, Coulter. Coll., — between Physodium Presl. & Mahernia — if indeed it does not fall into that Cape genus. — If not I mean to dedicate it to Sprague.

~~Fremont~~ —

√ 259. 1846. Sanicula bipinnatifida.
√ 156 " S. arctopoides.
√ 237 " Peucedanum utriculatum.
√ 487 " Edosmia Gairdneri.
√ " 222. 1845." Is it not 1846? For it is, to all appearance, the same as No. 1751. Calif. Hartweg. of which I have add'd young fruit — & which I probably "Ferula macrocarpa", Hook. & Arn. young & more downy, or a new species (not Peucedanum macrocarpum Nutt. — which is a Spalding plant with flowers only is it, as I suppose, has very large involucels — longer than the rays.) ~~[illegible]~~
√ 425. 1846. Daucus pusillus, var.)
√ 383 "
√ 349
97 "

} Umbellif. that I know nothing of.

Sunday Evening. Oct. 2

Dear Doctor — I take up, on this sheet, the needful points in your letter received ~~Saturday — of which the~~ ~~letters~~ this morning. —

I shall begin to print Fendler Plants in a week or 2 weeks — get up 8 pages & send proofs to you & Engelmann before it is struck off. — Wright's Tex. Plants — will be arranged with Lindheimer's.

To-morrow, when I go to College I will get Sloane & P. Browne for Lane to copy. —

Keep back Gossypii, Carey says, till he returns to N.Y. Too late to send to Boott by this steamer, which we have just written by.

Don't forget to send the Matricarias —

In your article for Smithsonian. I see not why you should hesitate to publish all the Calif. & other new plants you wish, with or without figures. Do I understand you also as wishing to anticipate that by publishing brief diagnostic characters of them -- or many of them, right away? Perhaps you might -- as soon as you have studied them carefully out. --

But, where the plants in question are not in Hartweg's Californ. Coll. I do not think you are likely to be anticipated, -- and the cases in which he has your novelties, I ~~think~~ have shown you are very few -- & do not touch any of your interesting materials, except the two Limnanthes, & the singular new Rosaceae & the Saxif. peltata. -- As to these, I should say that, since Benth. mentioned the two new Limnanthes in his letter to me of June 9th -- & since it is his genus, I would by courtesy let him name those. -- I think he has a right to the Rosaceous genus, as he spoke of it at that date, & told you, before you made it out that he had studied that family already, & you have only made it out after getting a portion of Hartweg's specimens. -- Still I would figure this genus in Smithsonian, among the rest. As to the Saxifrage, that belongs to you most clearly, & if you communicate it your name to Bentham, he will respect it & adopt it. -- Besides to make sure of this & others, you can either prepare a short article somewhere, -- or, what would be better, as you wish merely to save them, without destroying the novelty of your Smithsonian memoir -- just finish your characters of the things in question & append them as notes, along when they come in, in Pl. Fendlerianae. --

---

x Bentham has not mentioned the name of the Rosaceous genus. -- You can ask him for it, when you write to him of your novelties.

Are you sure of a western Echinocystis? When you
reexamine I will send you my fruiting Russian plant,
which cannot be an Echinocystis; nor hardly an Elaterium.
Coulters sp. has no ripe fruit.

The Hypericum rigidum you can secure by send
the name to [illegible]— or by giving me a character
to append in Pl. Fendl. note.—

There is neither an H. rigidum, nor a H. linifolium
in Steudel nomencl.

I know nothing of the Cercis as compared with C. Siliqu
But I cannot think an oriental plant native in Calif.

I thought I mentioned that Sprague cannot work
at Fremontias more till he finishes the Genera plates
he is now at— He is full till the 1st Nov. say, quite,
then comes your turn for the 12 plates &c. Then,
if engaged, he will take up the Expl. Exped. for you—
Drayton has been here. Sprague wants $12
a piece for folio plates filled with dissections— whi
he has to study out all himself.— Drayton wants h
to engage for $10. He could do them for $10.— & w
willingly, if there were not much more dissections than
on Fremontia Calif.— &c— I am unwilling that
he should engage to do all for— when I may sometimes
crowd a plate full of analyses.—

For "Coulterian specimens" in your letter, read Hart-
wegian. I shall not want to send in your box to
Hooker— there is nothing now ready, & I can send by
Steamer from Boston. I do not hesitate to send Scie
ic matters for others under Hooker's privilege.

Mary & Jane send best regards & love to all—
It is late & I must close. Thine ever

A Gray

Fremont's Pl.—

√ Separate flowers of a Bombaceous plant, aff. Fremontia.— Surely these flowers appear to belong to a *Bombaceous* plant— though I see the anthers are *introrse*.

I think it likely too that they belong to the simple leaved plant G. 1866.— (of which I lay aside your specimen to return)— I do not give it up as not Bombaceous because the ovary is one celled, & the fruit 1-seeded.

In the ovary I notice that there is a basilar placenta bearing *numerous* anatropous ovules:

One hesitates, till one could be *sure* that the flowers belong to the plant G.

I see no further light at present.

Then that plant of Fremont's, with simple opposite leaves— of which you give me fruiting specimens, & describe the flowers— You do not say whether the stamens are monadelphous— If not, or any how,— I do not see how it can be Bombaceous— nor can I guess what it is. But I will keep it in mind, and if any light breaks in I will let you know.

In Coulter's Mex. coll. (Sonora Alta) I have a *Kallstroemia*— like the one you mention from Emory— The leaflets are 12. and stalks & calyx hispid with long hairs; Is it the Ehrenbergia tribuloides *Mart.* Nov. Gen. Bras. 2. p. 73. t. 163. I have not access to).—

Sphaeralcea stellata. Torr & Gr. Smaller-flowered, surely, but I see not how otherwise distinguished from S. angustifolia (Malva angust. Cav.)

{ Your Sph. incana - Abat. is new to me. *
" S. - miniata. " Aug. 15. is S. Fendl. n. 78.

✓ 411, 1845 Fremont is a new Sphaeralcea - which ought to be called S. pedata.

That Dalea - Frem. I have taken as D. nana, Torr. ined. - as I find it is also in Texas - Lindheimer - The structure of flowers it is D. aurea nearly - but must be a spec.

---

*. On comparing the plate & descr. I suspect that it is Malva miniata, Cav. Ic. 3. t. 278. Sphaeralcea miniata. Spach. but can't be sure. - And as the two spec. only differ as to pubescence - I think I will refer them to S. miniata - Cav. figures the flowers larger, - but his is from the cultivated plant. -

Plantae Fremontianae (1845)

(3rd Exped.n) East of Fort Laramie

(of the portion sent back by D. Macdonald.)

126 / 134 } Argemone Mexicana β. July 15 – Pawnee Rock

158 / 163 } Cleome integrifolia

225 / 166 Polanisia trachysperma β. ?

203. / 214 } Erysimum asperum

244. Stanleya integrifolia

37 Silene stellata

460 / 163 } Portulaca oleracea

121 Linum

207 Linum

17 Oxalis stricta.

104 Viola cucullata (in fl.)

34, 49. }
48, 35 } Hypericum nudiflorum?
51, 52, }

127 } Vitis riparia
61 }
168 Vitis

128 } Sida coccinea
65 }

10 Aesculus glabra

31. Ceanothus

Plantae Fremontianae
1845.

Spartina cynosuroides
Elymus Canadensis
Panicum Crus-galli
Atheropogon apludoides
Panicum virgatum
Lepturus paniculatus
Chloris

The undescribed (figd.) are in Bentham's set.

428. Malvastrum Fremontii Gr. in Fendl.

D. 494 Calycanthus occident.

D 464 Amelanchier Canad. δ.

D 478 Hemizonia n. sp. aff. pung.

473 Lupinus Menziesii? large

498 Erigeron (Bendirig.) Douglasii

D 452 Grindelia squarrosa (approaching G. robusta Nutt.

443 Trifolium variegatum β T. & Gr.

426 Trifol. heterodon? ~~fimbriatum~~

431 Syrmatium junceum

455 Astragalus glaucus Dougl. (argophyll. Dougl.)
= Spalding's Coll.

D 468 Ceanothus integerrimus Hook. & Arn.

D 468 Arbutus.

493 Ceanothus rigidus Nutt [β var.] with large leaves

457 Vicia Americana β. (& Oregana)

416. Lathyrus – new ~~to~~ Dr Gray

D 432 Sidalcea diploscypha.

D 428. Malvastrum Fremontii n. sp. (see Gr. pl. Fendl.)

476 Sida hederacea Torr.

401 Eschscholtzia Californica

D (4208.) 459 Peraphyllum ramosissimum Nutt.

D 417 Thlaspi montanum (Silicle 3-5 ovuled)

485 Delphinium simplex β. Hook. & Arn. – prob.

449 Delphinium nudicaule

~~4~~ 423 Delphinium simplex var.

426 Sanicula arctopoides

D 441 Oenothera (Godetia)

435 Oenothera (Godetia).

D 430 Eucharidium

482 Clarkia elegans.

406

466 n. gen.

D 466 (vera) n. gen. Portulac.

D 447 Ribes cereum – young

D 489 Echeveria lanceolata?

463 Lithophragma glabra Nutt. (cf.)

D 467 Lonicera involucrata

499 (a) Rhamnus oleifolius – leaves scanty white underneath

499 Rhamnus oleifolius – still white underneath

Hartweg 1686 unites this with oleifol.

487 Edosmia Gairdneri

425 Daucus pusillus var.

#~~3~~
D 429 Sisyrinchium grandiflorum

D 480.

D 407. Pentstemon -

D 479 Orthocarpus

D 436 Collinsia

D. 465. Aesculus Californica, Nutt.

D. 456. Gilioid

D 446. [Monardella?]

D. 415 Phlox?

D. 434 Scutellaria

D 493 (6) Ceanothus confertifolius? -

483 (Crucif.)

454 Avena

469 Allium

~~406~~ 405 Delphinium

429

421 Orthocarpus

481. Nicotiana

402 Gilia or Phacelia.

475 Gilia

471 Gilia

493 ~~Linaria~~?

403 Lupinus

496 Psoralea orbicularis Lindl.

139. 151. Glycyrrhiza lepidota
171-83 Psoralea cuspidata Ph. (cryptocarpa) ?
27, 26. Psoralea esculenta -
15 - - argophylla
6 — near floribunda
101 —
84 Desmodium. n. sp.? (reticulatum)

77. } Dalea laxiflora
91 } 92

148, 145 } D. lanuginosa
132, 68. }

22, 242. Petalost. violaceum
25, 32 (bis), 12
32. Petalost. candidum

79, 80. } Darlingtonia
23, 181 }.
22 } Baptisia
20 }
172. Phaca. n. sp.?

252, 106. Phaca (densely tufted & silvery) n. sp.

1, 33. Amorpha canescens

103. Lupinus

76, 82 } Cassia cham.
83 }
46, 75 }
206 Hoffmanseggia Jamesii (Pomaria glandulosa Torr.)

85 } Schrankia
67 } 38, 131

188}
196} Cerasus - serotina]

29 Geum Virginianum

95, 105. Gaura

174 Gaura

29. Myriophyllum

20, 18,
71, 74
54, 67, 68 } Lythrum

82, 124
174,
149 } Mentzelia nuda

79, 240, 215, ornata -

123, 124 ~ oligosperma

122, 144. Ribes

[It is Prunus subcordata Benth. Pl. Hartw. No. 1710)
370 "Pomac. app. only 1 style – quite new to Afr. Lotus

D 374 Artemisia frigida
375. Oreophila –
D 399 Cirsium undulatum (C. Douglasii DC.)
393 Achyrachaena mollis
357 Ceanothus sorediatus Hook.
373 Viola Nuttallii. Hook.
369 Paeonia Brownii
D 384 Crucif. – genus? new to Dr Gray
372 Ribes Californicum H&A
379 = 1875 Hartweg Calif. Scroph. new to Afr
383 Umbellif. Gray don't know.
~~376~~ 364 Quercus densiflora Hook. & Arn
397 Lupinus
D- 376 Peucad. –
D 380 Leucocrinum 390 Geum 3-fl.
D 332 –
D 381 Sisyrinchium grandifl.
D 348
D 361. Collinsia 362 Heuchera grandifl.?
D 386. Artemisia tridentada.
D. 377. Phlox
307 [illegible].
360
358. Pedicularis 359. Ceanothus
368 Arbutus

underlined = Bentham
D — — = Decaisne } Oct. 1849

D 501 Photinia

D 505 Calycadenia cephalotes DC.

D 511 Philadelphus Lewisii

505 [bis Delphinium — Gray don't know.

D 504 Clematis lasiantha Nutt

D 510. (Mimulus

D 509 (Mimulus)

D 507 Gilia

D 506 (Lab.)

500 Quercus

"Tolumne River 1846.

"Prep D. 1846"

"Sacramento April 11. 1846" Gilia

"April 14 Valley of Sacramento. Lupinus

No. 8. Eryngium –

~~190 Solidago [illegible]~~

50. Cornus

55, 58. Cephalanthus occid.

60 }
34 } Sambucus

Symphoria –

56, 57 Symph. glomerata

36, 130 }
64 } Hedyotis stenophylla

10. Galium circaezans

14, 5 }
23 } Lobelia Clayt.

190 Solidago inuata

Pl. Fremont.

√ 180 (1846) Calandrinia Menziesii.
√ 258 ~~[illegible]~~ Claytonia parviflora Dougl. ~~(gypsophiloides F. & M.)~~) I have the true C. gypsophiloides from St. Petersb. Acad. Wiss.
√ 185 ~~[illegible]~~ C. perfoliata; with unusually large fls.

N.B. The Claytonia sp. of Spalding's coll. of which you have notes from Geyer, — is a large C. exigua, Torr. & Gray, — to which belongs all the C. spathulata, Hook. N. Am. Bot. Beech. suppl. — The true C. spathulata Hook. is I suspect the C. gypsophiloides F. & M. [illegible] but then that has a large corolla — much exceeding the calyx, — which Hooker's figure does not; — Hooker again confusing calls no. 478, Geyer, C. spathulata, while it has alternate leaves — & is C. dichotoma Nutt.

Mesembryanthemum (Prov. 2.) I hope introduced.

Prov 1. Frankenia grandifolia.

√ 80 & √ 86 (1845) Linum perenne.
√ Eee, 1846. L. Berlandieri ?

P.S. Notwithstanding the note affixed to Wislizenus Re
you have not given Geranium Fremontii in the
2d Report, — In fact have not published, have
you? — Should not you now adopt Engelmann's
name of G. [illegible].

~~[illegible]~~

~~[illegible]~~

Will you copy me the name & char. of your Rhus of Oregon, near to R. glabra? — Is it the same as no. 97. Pl. Fendl. ?

√ 298 (1846) Rhus diversiloba.
√ 49 & Aug. 22. 1845. — R. trilobata, Nutt. dwarf, as in part of Pl. Fendl.

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY.

19. 1845. This is the real Tribulus maximus Linn. — who took the absurd specific name from Sloane's "flore maximo", tho' Sloane says it is not so large as in the other. — the very next one. — which is Tribulus cistoides L. — is a true Tribulus.

√156. 1845. — Pachystima (Raf. End.) Myrsinites — a minor Hook. — How much smaller & rounder the leaves are than in Pl. Fendl. β. major.

√468 (1846) = Ceanothus integerrimus. Hook. & Arn.!
√493 " " rigidus Nutt., with still larger leaves.
√Aaa " " cuneatus, Nutt. (I have no specimen of the original.)
√211 " " cuneatus β. macrocarpus!
√Bbb. " " thyrsiflorus in fruit,
√357 " " sorediatus. Hook.
√25 1845. Dec. " ? an incanus? or new. descr.d

19. 1846. Polygala — don't wholly agree with P. Nutkana DC. or P. Californica. Nutt.

√457. 1846. Vicia Americana B. (& Oregana)

Have you Pl. Fendler's no. 166. Is it like Lathyrus [illegible], Muhl.? The stipules are entire, — that is of little moment, though, — and the tendrils are obsolete.

16. 1846. Lathyrus, new to me!
75. 1845 — Psoralea cuspidata.
11. 1846 " macrostachya.
" " strobilina
25 1845. Dalea aurea.

No. 180, Fendl. (of which there are no specimens distributed) is the same as plant of Fremont's 3d. coll. 1845 — sent home from Bent's Fort &

in flower almost exactly Dalea aurea, but has small & lax heads, sessile on the branches — and is a low & diffusely spreading plant. the upper surface of the leaves not green. Compare in herb. with your D. aurea — see if you have anything intermediate, & if not, I will venture it as a species, send me a name, which I will adopt. (D. Fremontii?)

— Send soon.

√432 (1846) = Sidalcea diploscypha.
√410 (1845) Sidalcea = a var. of my S. candida (see Nov.
80. Pl. Fendl. & compare your specimens) or a new species.
√418 & 82 (1845) = Sidalcea humilis. (Sida malvaeflora, Hook. & Arn. Bot. Beechey, Suppl. etc. — S. delphinifolia, Nutt.)
√Ww. 1846. = Sidalcea humilis, I suppose. —

Prof. John Torrey
Princeton
New Jersey

CAMBRIDGE
AUG
23
Ms.